REMARKS

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow. Independent Claims 1, 16, and 19 have been amended to incorporate elements from Claim 43 (which was previously indicated as allowable) and to remove unnecessary subject matter. No new matter has been added. After amending the claims as set forth above, Claims 1, 4, 8-16, 19-21, 23, 30, 32-36, and 38-44 are now pending in this application.

I. Statement of Substance of Interview

Applicants thank the Examiner for taking the time to conduct a telephone interview on July 23, 2009. In the interview, Applicants proposed amending independent Claims 1, 16, and 19 to include elements of Claim 43, which was previously indicated as allowable. The Examiner acknowledged that, in his estimation, such amendments would make the independent claims allowable.

II. Allowable Subject Matter

Applicants thank the Examiner for the allowance of Claims 35, 36, and 38-42. Additionally, Claims 43 and 44 were objected to as being dependent upon a rejected base Claim 1, but would be allowable if rewritten in independent form. As described below, Applicants believe that, as amended, independent Claim 1 is in condition for allowance and, accordingly, Claims 43 and 44 have not been amended.

III. Claim Rejections Under 35 U.S.C. § 103

Claims 1, 4, 8-10, 13-16, 19, 21, 23, 30, 32, and 33 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,706,111 ("Morales") in view of "A Low-Cost WDM Source with ASE Injected Fabry-Perot Semiconductor Laser," IEEE Photonics Technology Letters, Vol. 12, No. 8, August 2000, pages 1067- 1069, by Kim, et al. ("Kim"), "Semiconductor Optical Amplifier-Based All-Optical Gates for High-Speed Optical Processing,"

IEEE Journal on Selected Topics in Quantum Electronics, Vol. 6, No. 6, November/December 2000, pages 1428-1435, by Stubkjaer ("Stubkjaer"), and U.S. Publication No. 2004/0252738 ("Hill").

Independent Claims 1, 16, and 19 have been amended to incorporate elements of Claim 43. As amended, Claim 1 recites, in part, that the "optical router comprises a wavelength division multiplexer (WDM) configured to route the data modulated pumping light to the plurality of optically pumped sources." As amended, Claim 16 recites, in part, "receiving data modulated pumping light from a plurality of optical network units via a wavelength division multiplexer (WDM)." As amended, Claim 19 recites, in part, "receiving means for receiving data modulated pumping from a plurality of optical network units via a wavelength division multiplexer (WDM)." Applicants respectfully submit that Morales, Kim, Stubkjaer, and Hill, alone or in combination, fail to disclose, teach, or suggest these elements.

Column 4, lines 27-30 of Morales recites "an access node AN that concentrates and/or multiplexes the optical signals of the optical network terminating (ONT) units in order to access the optical switching centre mentioned CE." Column 5, lines 14-24 of Morales recites:

> Finally, at the access node AN there is a set of k optical access boards OAB for each plane of service, which performs the following functions: ... the multiplexing of the m different wavelengths over one of the optical fibers that connect to the center.

As such, Morales teaches only that an access node multiplexes optical signals onto an optical fiber for transmission to an optical switching center. However, Morales fails to disclose an "optical router [that] comprises a wavelength division multiplexer (WDM) configured to route the data modulated pumping light to the plurality of optically pumped sources," as in Claim 1, "receiving data modulated pumping light from a plurality of optical network units via a wavelength division multiplexer (WDM)," as in Claim 16, or "receiving means for receiving data modulated pumping from a plurality of optical network units via a wavelength division multiplexer (WDM)," as in Claim 19.

Kim teaches a Fabry-Perot semiconductor laser diode that receives amplified spontaneous emission (ASE) from an ASE source and a pseudorandom bit sequence from a pattern generator. (See Abstract and Fig. 1). However, Kim fails to disclose an "optical router [that] comprises a wavelength division multiplexer (WDM) configured to route the data modulated pumping light to the plurality of optically pumped sources," as in Claim 1, "receiving data modulated pumping light from a plurality of optical network units via a wavelength division multiplexer (WDM)," as in Claim 16, or "receiving means for receiving data modulated pumping from a plurality of optical network units via a wavelength division multiplexer (WDM)," as in Claim 19.

Stubkjaer is directed to the use of semiconductor optical amplifiers for use as wavelength converters. (See Abstract). Hill is directed to the use of rare earth doped group IV semiconductor nanocrystal material in the construction of lasers and LEDS. (See Abstract). However, neither Stubkjaer nor Hill disclose a wavelength division multiplexer. As such, both Stubkjaer and Hill fail to disclose an "optical router [that] comprises a wavelength division multiplexer (WDM) configured to route the data modulated pumping light to the plurality of optically pumped sources," as in Claim 1, "receiving data modulated pumping light from a plurality of optical network units via a wavelength division multiplexer (WDM)," as in Claim 16, or "receiving means for receiving data modulated pumping from a plurality of optical network units via a wavelength division multiplexer (WDM)," as in Claim 19.

For at least these reasons, Applicants respectfully submit that Morales, Kim, Stubkjaer, and Hill, alone or in combination, fail to disclose, teach, or suggest each and every element of independent Claims 1, 16, and 19. As such, Applicants respectfully requests reconsideration and allowance of Claims 1, 16, and 19 and Claims 4, 8-10, 13-15, 21, 23, 30, 32, and 33 (which depend from Claims 1, 16, and 19) under 35 U.S.C. § 103(a).

On page 18 of the Office Action, Claims 11, 12, 20, and 34 were rejected under 35 U.S.C. § 103(a) as being unpatentable over a combination of four different references, namely Morales in view of Kim, Stubkjaer, and U.S. Patent No. 6,434,175 ("Zah"). Applicants respectfully that the rejection is moot in view of the amendments to Claims 1, 16, and 19.

Zah fails to remedy the deficiencies noted above with respect to Morales, Kim, and Stubkjaer as related to Claim 1. Zah is direct to a "multiwavelength laser [that] includes a phasor portion (2) for providing wavelength accuracy and a DBR portion ... for forming a laser cavity." (Abstract). Zah teaches a "phasor multiplexer 320 located in the middle of a laser cavity 142." (Column 4, lines 27-28). Zah further teaches that the phasor multiplexer provides "intercavity wavelength filtering." (Column 4, lines 10-11). However, Zah fails to disclose an "optical router [that] comprises a wavelength division multiplexer (WDM) configured to route the data modulated pumping light to the plurality of optically pumped sources," as in Claim 1, "receiving data modulated pumping light from a plurality of optical network units via a wavelength division multiplexer (WDM)," as in Claim 16, or "receiving means for receiving data modulated pumping from a plurality of optical network units via a wavelength division multiplexer (WDM)," as in Claim 19.

As such, Applicants respectfully submit that Claims 11, 12, 20, and 34 are also patentable based at least on their dependence from Claim 1. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of Claims 11, 12, 20, and 34 under 35 U.S.C. § 103(a).

* * *

It is submitted that each outstanding objection and rejection to the Application has been overcome, and that the Application is in a condition for allowance. Applicants request consideration and allowance of all pending claims.

It should also be noted that although arguments have been presented with respect to certain claims herein, the recited subject matter as well as various other subject matter and/or combinations of subject matter may be patentable for other reasons. Further, the failure to address any statement by the Examiner herein should not be interpreted as acquiescence or agreement with such statement. Applicants expressly reserve the right to set forth additional and/or alternative reasons for patentability and/or allowance with the present Application or in

any other future proceeding, and to rebut any statement presented by the Examiner in this or other papers during prosecution of the present Application.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by the credit card payment instructions in EFS-Web being incorrect or absent, resulting in a rejected or incorrect credit card transaction, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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